

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously presented) A microchip, comprising:
a first substrate; and
a second substrate connected with the first substrate to define a connecting surface therebetween, the first substrate and the second substrate defining a microchannel in the connecting surface by a first groove part of the first substrate and a second groove part of the second substrate, the first groove part having a first protruding part and the second groove part having a second protruding part, wherein the microchannel includes a gap part formed by the first protruding part and the second protruding part, the gap part having a sectional size variable by a movable protruding part in the first groove part or in the second groove part, the movable protruding part being the first protruding part or the second protruding part, wherein, when the microchip is in use, the gap part is configured to block microbeads of a size greater than the sectional size of the gap part.
2. (Cancelled).
3. (Previously Presented) The microchip according to claim 1, wherein the first protruding part is opposed to the second protruding part.

4. (Previously Presented) The microchip according to claim 1, wherein the gap part is formed by inserting the first protruding part in the second groove part or by inserting the second protruding part in the first groove part.

5-6. (Cancelled).

7. (Previously Presented) The microchip according to any one of claims 1, 3, and 4, wherein the microchannel has an inner wall surface decorated with a surface treatment agent.

8. (Previously Presented) A kit for extracting nucleic acid, including:
the microchip according to claim 1; and
microbeads having surface hydroxyl groups introduced into the microchannel of the microchip.

9. (Previously Presented) The kit for extracting nucleic acid according to claim 8, wherein the microbeads include at least one of silica microbeads having a diameter of 10 μm or smaller, hollow silica microbeads, and resin microbeads.

10. (Previously Presented) The kit for extracting nucleic acid according to claim 8, wherein the surface hydroxyl groups are coated with a coupling agent.

11. (Previously Presented) The kit for extracting nucleic acid according to claim 10, wherein the coupling agent includes a silane coupling agent including trialkyl halogenosilane as a main component.
12. (Previously Presented) A method for extracting nucleic acid using the kit according to claim 8, wherein the nucleic acid to be processed is adsorbed on surfaces of the microbeads introduced in the microchannel of the microchip.
13. (Previously Presented) The method according to claim 12, wherein the nucleic acid is adsorbed on the surfaces of the microbeads under the existence of chaotropic ions.
14. (New) The microchip of claim 7, wherein the surface treatment agent comprises a silane coupling agent comprising trialkyl halogenosilane.
15. (New) The microchip of claim 14, wherein the trialkyl halogenosilane is triethylchlorosilane.
16. (New) The microchip of claim 1, wherein the first and second substrates comprise glass or quartz.
17. (New) The microchip of claim 16, wherein the substrates consist essentially of glass or quartz.

18. (New) The microchip of claim 1, wherein the gap part has a fixed sectional size.

19. (New) A microchip suitable for extracting nucleic acids, comprising:

a first substrate; and

a second substrate connected with the first substrate to define a connecting surface therebetween, the first substrate and the second substrate defining a microchannel in the connecting surface by a first groove part of the first substrate and a second groove part of the second substrate, the first groove part having a first protruding part and the second groove part having a second protruding part, wherein the microchannel includes a gap part formed by the first protruding part and the second protruding part, the gap part having a sectional size variable by a movable protruding part in the first groove part or in the second groove part, the movable protruding part being the first protruding part or the second protruding part, wherein, when the microchip is in use, the gap part is configured to block microbeads of a size greater than the sectional size of the gap part, and wherein the inner surface of the microchannel is decorated with a surface treatment agent comprising a silane coupling agent comprising trialkyl halogenosilane.

20. (New) The microchip of claim 19, wherein the surface treatment agent consists essentially of trialkyl halogenosilane.